MC0133

HOSPITAL BUILDING NOTE

PSYCHIATRIC WARD TYPE 1

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Psychiatric Ward Type 1

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Appendix.

An addendum to Appendix E of Hospital Building Note No. 2, *The Cost of Hospital Buildings*, which sets out cost recommendations for Psychiatric Ward Type 1, is supplied with this Building Note.

I. Scope

1. The type of ward referred to in this Note will accommodate 30 patients. The accommodation is suitable for either low grade, severely subnormal patients, or other mentally subnormal patients who are severely physically handicapped and require constant supervision and habit-training.

2. To appreciate the nature of this type of ward and its relationship with the rest of a psychiatric hospital, this Note should be read in conjunction with Building Note No. 30, Accommodation for Psychiatric Patients.

II. General considerations

3. The siting of wards generally is referred to in Building Note No. 30. Briefly, a domestic zone should be designed where wards of various types can form a compact development. Subdivisions within this zone can separate groups of patients according to their age, sex, or behaviour. Each group may have an assortment of wards arranged into precincts or around open courts, approached by cul-de-sac roads off the main circulation routes. Wards for children should not be sited amongst those for adults but in special groups associated with their own schools or training facilities.

4. The layout of the domestic zone should be to a considerably higher density than has been the practice in the old isolated hospitals, and it is important that courtyards and areas between buildings should be carefully designed to play a part in the treatment of the patients accommodated in the unit. Where it is necessary to separate one group of patients from another, visual and other barriers such as shrubs, trees, terraces, etc., which can be sited close to the wards are often sufficient, but a fence may be necessary to prevent wandering. Landscaping details should take into account the cost of maintenance; this can be high where hedges and small lawns are involved.

5. A single-storey building is recommended. Patients should have easy access to the open air, with sheltered verandahs or terraces. There could be a grassed area as part of the surround to the ward, for patients' recreation.

6. Many patients require habit training and easy access to the lavatory accommodation from the wards and day spaces is needed. The floors of the patients' sanitary accommodation should be able to withstand the free use of water for cleaning. All rooms used by patients should have floors which can be easily cleaned; this will require particular attention where underfloor heating is used.

7. Limited provision will be required for the isolation of individual patients or for those who may be disturbing to others. Considerable damage may be done to the finishes, and it is important that they should be designed and constructed to resist this. Doors in accommodation for patients' use should be designed to allow the passage of beds or wheelchairs.

8. Few, if any, of the patients will be able to go far from the ward, and a visiting room should therefore be available for relatives and others who may wish to visit patients.

Zones of activity within the ward unit

9. Activities in the ward unit will require certain rooms to be linked together. The zones for these activities, and their inter-relationships, should be established before detailed planning is started because their disposition will affect the overall form of the unit, its orientation, and its relationship to the roads, the landscape, and adjacent buildings. The rooms and facilities which should be grouped together in this manner are as follows:

Group (A) Entrance—staff and visitors' rooms—ward stores—treatment room—ward pantry.

Group (B) Ward (dormitory area)—sister's office—nurses' station—day space—dining space—verandah.

Group (C) Sanitary facilities—changing rooms—linen and clothes stores—sluice room.

10. Figure 1 shows a diagrammatic arrangement of these groups.

11. Group A forms an administrative section which is not normally used by patients. It is convenient, where possible, to arrange the approach road and main entrance on the north side so that full use may be made of sunshine on the other three aspects, where gardens and verandahs may be provided.

12. Group B consists principally of the dormitory area and the day/dining area. These should form distinct spaces but various methods of separation may be required between them, ranging from no physical barriers at all, to low level or panelled partitions which may be glazed where observation is necessary. No distinction need be made between the day and the dining area. The nurses' station should be sited to permit wide observation from one vantage point, particularly at night when fewer staff will be on duty. These requirements may lead to planning in depth, and advantage should be taken of the use of roof lights, clerestoreys and roof vents, to supplement light and ventilation provided naturally in the outside walls and windows. Good ventilation is

essential in this type of unit where incontinence is a problem. A varying proportion of these patients can appreciate a view.

13. The sanitary accommodation—group (C)—must be in close proximity to, and easily accessible from, all points in the rooms in group (B). If for any reason there are spaces in group (B) not provided with easy access to the w.c's—such as the verandah —then provision of additional facilities should be considered at these points. Some underfloor heating is recommended provided the floor can be easily cleaned. Fittings should be arranged for use in the sequence in which they are required. If access is required from widely separated areas this group of rooms could be planned in a long narrow space with several points of entry.

14. Figure 2 shows a diagrammatic layout of a ward unit.

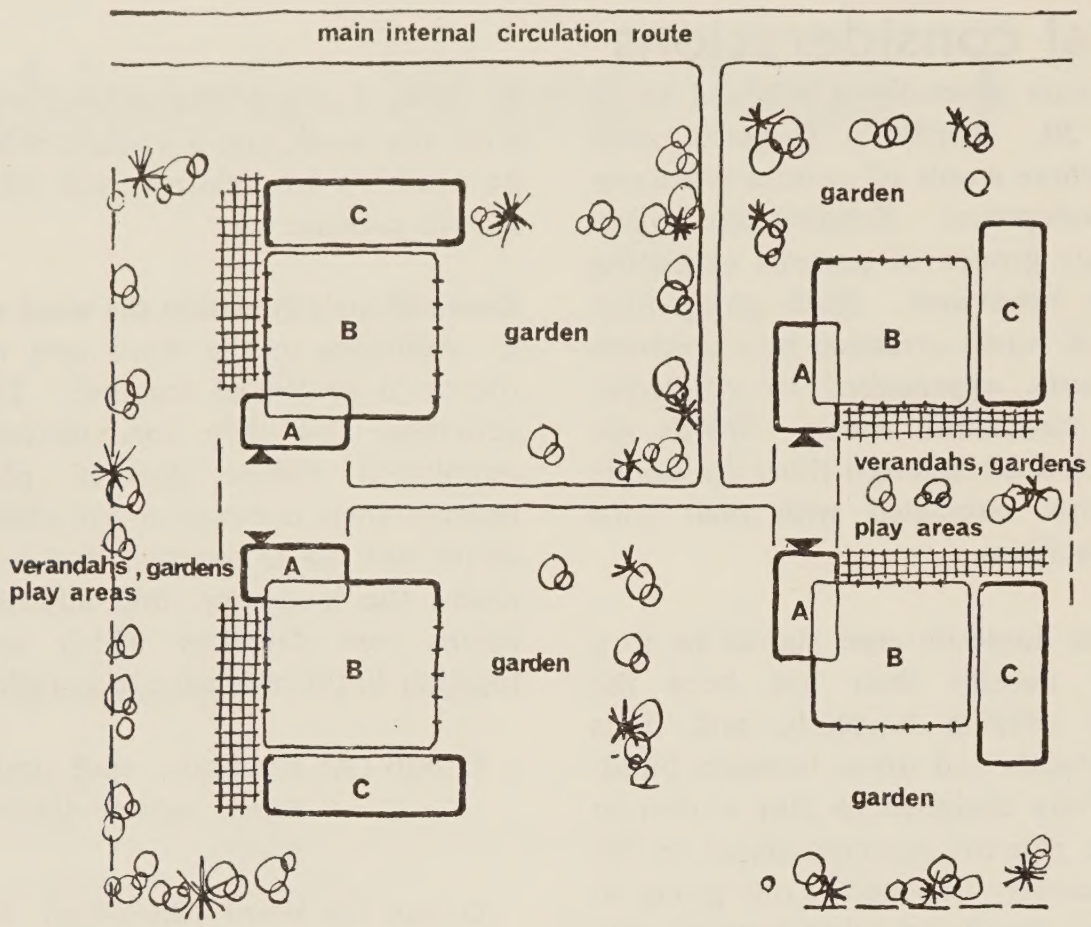

FIGURE 1. Demonstration of possible layout for a group of ward units.
Key to arrangement of rooms:
Group (A) Entrance—staff and visitors' rooms—ward stores—treatment room—ward pantry.
Group (B) Ward (dormitory area)—sister's office—nurses' station—day space—dining space—verandah.
Group (C) Sanitary facilities—changing rooms—linen and clothes stores—sluice room.

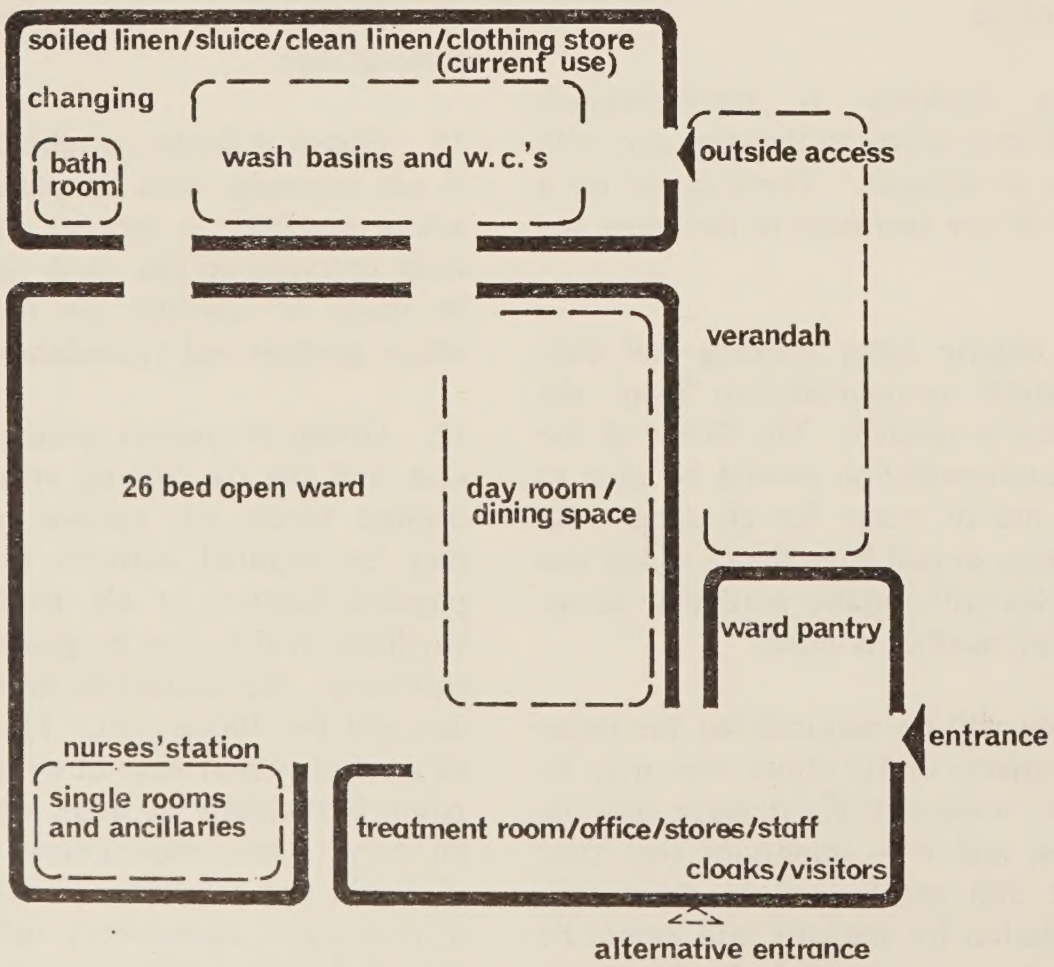

FIGURE 2. A single-storey unit suitable for 30 severely subnormal non-ambulant patients. (Note: Some clerestorey or roof lights and ventilators will be required over the central portions of the building.)

III. List of rooms

A. Basic accommodation

15. This should be provided in all cases.

Group (A)

(i) Main entrance
(ii) Staff lavatories
(iii) Visitors' room
(iv) Visitors' lavatory
(v) Ward pantry
(vi) Treatment room/clean utility
(vii) Ward stock room and equipment store
(viii) Trolley and chair bay
(ix) Cleaners' room.

Group (B)

(i) Single-bed wards
(ii) Multiple-bed wards
(iii) Sister's or charge nurse's office
(iv) Nurses' station
(v) Day space
(vi) Dining space
(vii) Verandah

Group (C)

(i) Patients' lavatories
(ii) Sluice room
(iii) Soiled linen room
(iv) Changing room
(v) Bathrooms
(vi) Patients' clothing store
(vii) Clean linen reception room
(viii) Drying room

Circulation space for all groups above.

Functional unit

16. The functional unit selected for the basic accommodation in this Note and the related Cost Note (Appendix E to Building Note No. 2) is the ward unit for 30 patients.

B. Additional accommodation

17. Additional accommodation which may be required includes:

(*a*) Patients' clothing store
(*b*) Doctor's room
(*c*) Bicycle store.

IV. Description of rooms

A. Basic accommodation

18. The Appendix gives a list of the rooms in the basic accommodation and their recommended areas.

Group (A)

(i) *Main entrance*

19. This is principally for the use of staff and visitors. A draught lobby should be provided.

(ii) *Staff lavatories*

20. One w.c. and one lavatory basin will be required by the staff, together with a room, fitted with lockers, in which they may change their clothes. An area of 120 square feet is needed. In the case of wards with both male and female staff, two cloakrooms will be required each of 100 sq. ft.

(iii) *Visitors' room*

21. This should be furnished as a lounge and sited near the entrance lobby.

(iv) *Visitors' lavatory*

22. One w.c. and one lavatory basin will be required, with space for hanging a coat, etc., and a shelf for a handbag, parcels, etc.

(v) *Ward pantry*

23. All ward pantries will normally be equipped to undertake their own washing-up as transport difficulties over certain distances (and road conditions) usually preclude collection of crockery to a central point. The area of the pantry in this case would be 200 sq. ft. If, however, the transport problem (high breakage rate, etc.) can be overcome, central washing-up should be considered, and a smaller ward pantry of 120 sq. ft. will suffice (see Appendix).

The route between the delivery vehicle and ward pantry should be short and without steps or steep gradients so that food trolleys can be wheeled directly into and out of the ward pantry.

The ward pantry should have a hatch opening on to the dining space and access for wheeling the food trolley into the dining or bed areas.

The equipment to be provided in the larger pantry should include a hot closet with boiling rings, a toaster or grill, a refrigerator, an instantaneous water boiler and a wash basin. One stainless steel sink and a small dish-washing machine are required with a total of 8 feet run of drainer arranged with a 2 ft. (maximum) section between the sink and the dish-washing machine and a 3 ft. section at either end.

Alternatively the dish-washing machine may be replaced by a heated rinsing sink. Storage space for crockery, cutlery, and beverage ingredients, etc., will be needed, together with space for tray racks and a service trolley.

(vi) *Treatment room/clean utility*

24. This will be used for medical examinations and minor treatments. It should be near the sister's office. Space will be required for a dressings trolley, couch, storage (with locked medicine cupboard), a lavatory basin with elbow-operated taps, a worktop, and, where central sterile supply is not available, a steriliser.

(vii) *Ward stock room and equipment store*

25. This is required for the storage of new hospital clothing, play and training equipment, bulk cleaning supplies, etc.

(viii) *Trolley and chair bay*

26. Spaces for parking trolleys and chairs should be available in or very close to the ward. About 7 square feet will be required for each patient.

(ix) *Cleaners' room*

27. A cleaners' room is required with a bucket sink with hot and cold water, drainer, locker, and space for mechanical cleaning equipment and cleaning utensils.

Group (B)

(i) *Single-bed wards*

28. These rooms may be used by patients needing special care, or for unduly noisy patients who have to be kept away from the general wards at night. These rooms could also be used to accommodate suspected infectious cases temporarily, pending their removal for treatment elsewhere. Four single-bed wards, each of about 110 square feet, should be provided. The door to these wards should be hung to open outwards and should be fitted with glazed upper panels. Armoured glass may be needed for the window, which should be designed so that it has no corners or projections against which the patient may strike himself. Care must be taken to provide adequate ventilation for occasions when the window is kept shut. The room should be proportioned to allow the patient's bed to be approached from both sides, one side being accessible to a trolley wheeled in through the door. A w.c. and hand basin should be provided en suite with one of the single rooms for the exclusive use of an isolated patient. This will be in addition to the number of w.c's recommended in paragraph 35 below and the space required will be extra to the 110 square feet recommended above.

(ii) *Multiple-bed wards*

29. The beds or cots should be spaced at 7 feet centres, allowing approximately 70 square feet per bed. A lavatory basin will be required in each ward. Supervision of all beds should be possible from the nurses' station. Apart from single rooms, therefore, the beds should be arranged without partitions or sub-divisions.

(iii) *Sister's or charge nurse's office*

30. This is used for interviewing staff and visitors and preparing reports. The room should be planned in association with the patients' day space if possible, and be near the main entrance. Space is needed for a desk or table, chairs, bookcase, medicine cupboard and filing cabinet.

(iv) *Nurses' station*

31. This should be designed as a partially glazed enclosure of about 60 square feet, containing a desk, telephone, etc., where the nurse can make out and store patients' charts, and at the same time be aware of the patients' activities within the ward and on the verandah. It is also convenient if the nurse can see across to other zones outside the ward, such as the main entrance and the kitchen.

(v) *Day space*

32. An area of 27 square feet per patient is required for day space. This should be planned without partitions and should be adjacent to the bed area. Roof lighting and ventilation may be required if any of this space is more than 20 feet from an outside wall. It is important that direct and close access to the sanitary accommodation should be provided from the day space.

(vi) *Dining space*

33. This may form part of the day space, and should be sited to enable food trolleys to be conveniently wheeled in from the servery. An area of at least 15 square feet per patient should be allowed.

(vii) *Verandah*

34. A 12 feet wide covered verandah is required along one side of the ward. Protection at the sides may be necessary to guard patients against cold winds.

Group (C)

(i) *Patients' lavatories*

35. Easy access to the patients' sanitary accommodation is essential from the wards and day rooms. About 650 square feet will be required for the following:

(*a*) *W.c's*

One w.c. should be provided for every three patients. One of them should be wide enough to permit the entry of a wheelchair and accompanying nurse. Graded heights of w.c's should be considered for some patient groups. Supports for non-ambulant patients in the form of hinged rods or frames fixed to the w.c. partitions may be required. Space is required for the habit-training of children.

(*b*) *Lavatory basins*

Basins should be grouped with w.c's and placed to encourage cleanliness. They should be in the proportion of one basin to every three patients. They should be adequately spaced to take chairs and permit standing room for a nurse on each side. They may need to be mounted at various heights from the floor. Shelves should be provided en suite with the group of lavatory basins and facilities should also be available for the hanging or storage of patients' toilet articles.

(ii) *Sluice room*

36. This room is required for emptying, cleansing and storing sanitary utensils. It should be near the multiple-bed ward and day room and should contain a flushing sink, sink, and facilities for washing, disinfecting and storing sanitary utensils.

(iii) *Soiled linen room*

37. A room for bins and soiled linen bags awaiting collection will be required.

(iv) *Changing room*

38. This is required for dressing and undressing patients for baths. It should be en suite with the bathrooms and close to the clean and soiled linen rooms.

(v) *Bathroom(s)*

39. A multiple bathroom containing three baths and one shower cubicle (placed in or beside the bathroom and fitted with flexible hip spray) are required. The baths should be free standing, and raised to save the nurses from continually bending. Curtains should be provided between the baths and a hoist and slings are needed for lifting heavy patients in and out. Steps leading to a raised landing should also be provided on one side of the bath, to assist ambulant patients. Each bath should be positioned to allow a trolley to be brought alongside and clipped to it. Wide wastes are required for the baths and shower tray.

(vi) *Patients' clothing store*

40. A room will be required for patients' clothes, shoes and personal possessions in current use.

(vii) *Clean linen reception room*

41. Each ward will require to hold a reserve of clean linen for the longest period over which the hospital supply department is closed (at week-ends, etc.). Space will also be required for baskets, trolleys and racks on which to store the linen.

(viii) *Drying room*

42. A room of about 30 square feet, with facilities for airing towels, will be required.

Circulation space for all groups above

43. Corridors should be well lit and ventilated and a minimum width of 8 feet in the clear is recommended. Space is needed for cupboards, etc., for services, meters and switches.

B. Additional accommodation

(*a*) *Patients' clothing store*

44. Additional space may be required for storing patients' clothes not in current use.

(*b*) *Doctor's room*

45. A room of about 120 square feet may be required for the doctor's use. This should be associated with the sister's office and the treatment room.

(*c*) *Bicycle store*

46. A covered bicycle store may be required for the use of the staff.

V. Engineering services

47. Engineering services should be designed and installed to ensure ease of maintenance and the minimum interruption of services and disturbance to the working of the department while repairs and maintenance are being carried out.

48. Special care should be taken to avoid features which might cause injury to patients.

49. Where it is impracticable to make use of the main hospital incinerator, a single incinerator is to be preferred to a number of local units, particularly with regard to safety aspects.

50. Facilities should be provided for the easy installation of meters should they at any time be required.

51. Fire protection of the building may influence the design of engineering services, especially ventilation schemes. Due regard should therefore be given to these requirements in the early stages of design.

Mechanical services

Heating

52. The heating system should be designed for continuous operation and to be available during the summer for use on cold summer days.

53. The following table gives recommended heating design temperatures and ventilation rates based on an outside temperature of 30°F.

	Temperature	Air changes per hour
Day space, dining space and wards	70°F	3
Treatment room/clean utility	70°F	3*
Bathrooms	70°F	2
Patients' lavatories, drying room, doctor's room and changing room	65°F	3
Sister's or charge nurse's office, nurses' station, corridors and trolley and chair bay, visitors' room	65°F	2
Entrance lobby	60°F	3
Staff and visitors' lavatories, ward pantry, clean linen reception room, patients' clothing store, cleaners' room, sluice room	60°F	2
Ward stock room and equipment store	50°F	½

54. A conventional hot water heating system with radiators or recessed convectors provides a generally satisfactory form of heating. For wards, day spaces and patients' lavatories, however, there are medical advantages in having warm floors: this can be achieved with embedded floor panels; the floor surface temperature should not be more than 75°F. Because of this limitation of the floor surface temperature, particularly for a single-storey building, floor heating may not be entirely satisfactory unless it is used in association with another form of heating.

55. Electric underfloor heating, run at off-peak hours, is not likely to be a satisfactory form of heating for this type of accommodation and it should not be installed without careful consideration of the characteristics of this form of heating and the particular conditions.

56. Radiators and convectors should be placed below windows and against exposed walls to counteract cold air currents, and should have sufficient clear space beneath to facilitate floor cleaning by machines.

57. Where there are roof lights, clerestoreys and roof vents, the heating system should be designed to prevent cold down-draughts from them. Exposed heated piping at high level should not be used however: a better alternative is to have embedded coils or flush panels in the sides of the openings.

58. Hot water radiators and pipes installed in areas used by patients should be provided with guards, as some patients may have defective sensations of heat and could be injured by hot surfaces. Guarding of radiators and pipework is often unsightly and requires more cleaning and maintenance, and for this reason convectors are preferable in these areas; pipework being concealed where practicable.

59. Fan convectors having fresh air inlets and air filters, and controlled by a time switch, have advantages in dormitory areas where additional ventilation may be required to remove smells.

*Where the treatment room is used for minor surgery it is desirable to provide six air changes per hour.

60. Where ceiling heating systems are to be used they should conform to the recommendations of the Medical Research Council's Environmental Research Unit which may be found in the "Guide to Current Practice" of the Institution of Heating and Ventilating Engineers. Where ceiling heating systems having removable panels are considered, the possibility of interference by the patients should not be disregarded. In ceiling heated rooms the incoming air from windows should not be directed at the ceiling.

61. Electric heaters will not normally be required, but where they are provided, and where patients can come into contact with them, the heaters should have low surface temperatures or be suitably guarded, the electric elements being totally enclosed.

Ventilation

62. Treatment rooms used for minor surgery should be mechanically ventilated at a rate of six air changes per hour, the fresh air being filtered and warmed before being introduced into the room at high level through suitable diffusers designed and positioned to avoid draughts. Discharge should be by means of a suitably placed low level grille with a quiet lightweight flap valve in the ducting to outside; when the door is closed a slightly pressurised condition in the room should be maintained.

63. Filters of 95 per cent efficiency down to 5 microns are satisfactory but additional coarse prefilters are necessary in districts where the air is dirty.

64. Mechanical extract at high level to outside should be provided in the ward pantry; it should also be provided in the sluice room but at low level. Mechanical extract may also be required in single-bed wards and day spaces where adequate air changes are required without having to open windows.

65. Internal rooms should be mechanically ventilated to suit their individual requirements.

66. Because of the heavy demand of habit training, patients' lavatories require a good level of extract ventilation, and for all lavatories where they are situated internally, mechanical extract ventilation is necessary.

67. External discharges should be protected against back pressure from the wind. Air inlet grilles are necessary where the ventilation is mechanical extract only.

68. Soiled linen storage rooms should be unheated and naturally ventilated to the outside of the building.

Hot and cold water and drinking water services

69. These are normally provided by connection to the main services of the hospital.

70. Hot water storage capacity should be based on meeting the maximum requirements for two hours, and the rating of the calorifier battery should be calculated on a three-hour recovery period, having regard also to the heat losses from the mains. The cold water storage should be sufficient for 24 hours' requirements.

71. Baths and lavatory basins for patients should be fitted with both quick fill and emptying fittings. The hot water temperature should be controlled at a maximum temperature of 100°F as a precaution against scalding. Where possible a range of these hot water fittings may be supplied through a thermostatically controlled mixing valve. Alternatively, consideration might be given to a low temperature hot water distribution from the calorifier to reduce maintenance, and the dependence on a number of mixing valves, in which case a separate hot water circuit at normal temperature would be required for staff lavatories, sluice room and ward pantry.

72. The taps for patients' lavatory basins may be push-operated, but in some cases (where it is necessary for training purposes, etc.) they may be normal pillar taps. Lever arm taps of the type having a mixed flow outlet will be required where aseptic conditions make this necessary.

73. Normal pillar taps should be provided elsewhere. Where taps and valves which are not for patients' use are accessible to them and are likely to be tampered with, consideration should be given to the use of key operation.

74. The hot water circulation system should also serve bathroom towel rails (a built-in radiator may be provided if at a safe temperature) and the heating coils in drying rooms and clean linen reception room.

75. A drinking water tap should be provided in the ward pantry, and may also be required near to the medicine cupboard.

76. One sink in the ward pantry should be provided with facilities for a hot rinse, but where large amounts of crockery have to be washed and there is no central wash-up, consideration should be given to the provision of a dish-washing machine which rinses at a temperature of 180/190°F.

Sterilising equipment

77. Where a central sterile supply service is not provided, and a supply of sterile syringes, etc., cannot be provided from a neighbouring hospital, a small high-pressure steam steriliser may be required in the treatment room for the sterilising of syringes, small bowls and instruments. The steriliser may be electrically powered but should be in accordance with B.S.3233 and 3219.

78. In the sluice room there may be a need for the provision of a small machine for sluicing and disinfecting foul linen before it is placed in a soiled linen room.

Gas

79. Gas points should be regarded as a potential hazard and only provided where a gas supply is essential. A gas service may be required in the ward pantry.

Piped oxygen and suction

80. Piped oxygen and suction will not normally be required.

Electrical installation

81. The electrical installation will include wiring and equipment for general and special lighting, socket outlets, emergency electric services, heating, ventilating, telephones, clock system and a bell push system for external doors.

82. In areas to which patients have access special consideration must be given to safety in the selection and positioning of electrical fittings, accessories, equipment and appliances.

83. The electrical supply will generally be provided by a sub-main circuit from the main intake and distribution centre. Local distribution boards should be sited to minimise the length of circuit wiring. They should be easily reached from a standing position and housed in ventilated locked cupboards preferably accessible from corridors; boards not in locked cupboards should be fitted with locks. H.R.C. fuses are recommended and, in addition to the provision of spare ways and fuses, space should be allowed for future additional units.

84. Conduits and cables should be concealed, service ducts being provided wherever practicable and the external wiring either P.V.C. cables in galvanised screwed conduit or M.I.M.C. cables.

Artificial lighting

85. Specialised lighting is largely confined to wards and treatment rooms; for other areas lighting should follow standard modern practice. Lighting fittings should have a low glare index, not be dust collecting and should be readily accessible for maintenance and not difficult to clean.

86. The following table gives recommended values of general illumination for various rooms:

Accommodation	*Average lumens/ft.² recommended at working level*
Treatment room/clean utility	20
Day and dining space, doctor's room, nurses' station, sister's or charge nurse's office	15
Wards (no bedhead lighting), ward pantry, visitors', changing and sluice rooms	10
Trolley and chair bay, lavatories, bathrooms, cleaners' room, soiled linen room, stores, clean linen reception room, drying room and entrance ...	7*
Corridors	7*†
Bicycle store	Nominal

Lighting in wards

87. The avoidance of glare is important and a glare index of not more than 13 is recommended. All lights should be screened from the beds and any part of a lighting fitting visible from a bed should have a brightness of not more than one foot lambert. These restrictions should be applied also to lighting in corridors, circulation space, etc., outside the ward but visible from the bed through unscreened glazing.

88. Tungsten filament lighting is usual but fluorescent lighting has been found to be suitable, where the lamps have acceptable colour rendering. Lighting fittings in single-bed wards should be flush mounted in the ceiling and be protected by heavy glass.

89. Night lighting should provide an indirect illumination on the bed of 0·01 lumens per square foot for adult awards and 0·1 lumens per square foot for children's wards; for the rest of the ward there should be just sufficient light to enable staff to move easily around. Night lights of low wattage tungsten filament may be incorporated in the general lighting fittings. An illumination of 3 lumens per square foot should be adequate for the nurse's desk provided that the nurse does not have frequently to enter ancillary rooms lighted to higher standards of illumination. A table lamp is not recommended for the nurse's desk.

90. Switching for the ward lighting which may include separate or two-way and off switches for the low intensity night lighting, should be grouped together in a lockable cupboard at a convenient position outside the wards, usually the nurses' station.

Other lighting

91. In addition to general lighting, a separately switched wall or ceiling mounted adjustable spotlight will be required in the treatment room.

92. Lighting fittings in the ward servery and pantry should be carefully arranged to give direct lighting over the sink and wash-up area.

93. Fittings in day and dining spaces should be chosen to give a pleasing effect.

94. Corridor lighting fittings should be of the enclosed type and staircase lights sited to enable easy cleaning and maintenance.

95. Local switch control (except in the wards) is generally satisfactory; the switch positions for staircase lights should be carefully selected.

96. Where the building is detached, external and road lighting will be required and should be controlled by a time switch. External fittings should be weatherproof.

Mains voltage outlets

97. Sufficient 13 A. universal type switched shuttered socket outlets, connected to ring or spur circuits, should be provided to allow each portable appliance which is likely to be in use at the same time to be supplied from a separate outlet. In wards and other spaces occupied by patients, there may be advantages from a safety aspect in having the circuit controlled by a double pole master switch with a neon indicator light within or near the nurses' station to isolate the sockets when they are not required.

98. Fused spur boxes are considered to be unsafe for use in areas occupied by the patients. For areas not occupied by patients fixed appliances rated up to 13 A. may be permanently connected to 13 A. fused spur boxes. Appliances rated in excess of 13 A. should be permanently connected to separate final sub-circuits and independently switched.

99. The following socket outlet distribution is suggested:

Treatment room	2 twin outlets, plus provision for fixed electrical apparatus.
Day space	1 twin outlet, plus 1 outlet for T.V.
Single-bed ward	1 twin outlet.
Multi-bed ward	1 single outlet shared between two beds plus 1 outlet for general use.
Nurses' station	1 twin outlet.
Sister's or charge nurse's office and doctor's room	1 twin outlet.
Ward pantry	To suit the number of appliances plus 1 or 2 for future requirements (depending on the size of room). Outlets should include neon type indicating lights.
Visitors' room	1 twin outlet.
Corridors	Socket outlets to be provided to allow for the convenient use of domestic cleaning appliances having a flexible lead assumed to be 30 ft. long.

* Standard given is required at floor level.
† This figure may be increased where adjacent intensities are high.

100. In order to reduce interference by patients, the socket outlets are usually placed at high level out of easy reach, but where this is not possible and there is the likelihood of damage or tampering, locked cupboards may be necessary. Non-luminous heating appliances should have a neon indicating light to show when they are in use; the light may be in either the appliance socket outlet or plug-top.

Emergency electrical services

101. Guidance on the provision of emergency electrical supplies in hospitals is given in the Ministry's Technical Memorandum No. 11, Emergency Electrical Services.

102. Emergency lighting grade (*b*) to about half the normal standards should be provided in the general working areas to enable essential activities to be carried on and skeleton lighting provided for corridors and staircases to allow the essential movement of staff and patients with reasonable safety.

103. Battery operated lanterns should be provided for use in general nursing areas which have no installed emergency lighting.

104. Socket outlets supplied from the emergency electrical services will not normally be necessary.

Telephones

105. Telephone facilities for internal and external calls are required in the doctor's room, nurses' station and the sister's room. The latter should be connected in parallel with an indicating light which is easily visible at each nurses' station. The telephones for the nurses' station and sister's room should be fitted with a quiet bell which when desired may be switched out of circuit.

106. A call box or booth with G.P.O. telephone for the use of visitors will normally be available in or adjacent to the main entrance to the hospital.

107. Conduit and trunking for telephone cables should be concealed.

Electric clocks

108. An electric clock will normally be required in the sister's room, treatment room, in the main entrance and day and dining space; the clock in the treatment room should have a sweep second pointer.

Staff location systems

109. A wired staff location system or an induction system may be provided as part of the general staff location system of the hospital. The system should enable staff to be called at night without disturbing the patients.

Television and radio

110. Socket outlets, aerials and adequate earthing arrangements should be provided in day spaces for T.V. sets. Similar provision in wards and day spaces may be made for radio sets but there are advantages in having a central radio system with loudspeakers in the wards and day spaces and the controls at the nurses' station or other convenient place.

111. Sets should, where practicable, be mounted so that patients cannot readily interfere with them and for a central radio system the loudspeakers should be at high level and have a pre-set volume control.

112. It may be necessary to connect the socket outlets for the sets to a separate circuit although experience shows that these sockets are rarely interfered with. It is also advisable to fit a suitable guard to the T.V. set controls.

Fire alarms and fire fighting equipment

113. Information on fire alarms and extinguishers is given in B.S. Codes of Practice and in HM(56)36, Hospital Fire Precautions. Advice on the fire fighting installation proposed should be sought from the local fire authority.

114. Key-operated alarm points have advantages over the break-glass type alarm buttons which are prone to deliberate breakages.

APPENDIX

Recommended minimum areas for rooms in basic accommodation

Description of rooms	*Sq. ft.*
Group (A)	
(i) Main entrance	70
(ii) Staff lavatories (usually one sex)	120
exceptionally both sexes, each	100
(iii) Visitors' room	120
(iv) Visitors' lavatory	40
(v) Ward pantry	200*
(vi) Treatment room/clean utility	170
(vii) Ward stock room and equipment store	120
(viii) Trolley and chair bay—per patient	7
(ix) Cleaners' room	50
Group (B)	
(i) Single-bed wards	110
(ii) Multiple-bed wards—per patient	70
(iii) Sister's or charge nurse's office	120
[redacted]	
(iv) Nurses' station	60
(v) Day space—per patient	27
(vi) Dining space—per patient	15
(vii) Verandah—12 ft. wide	600
Group (C)	
(i) Patients' lavatories	650
(ii) Sluice room	100
(iii) Soiled linen room	60
(iv) Changing room	120
(v) Bathroom(s) (per bath)	100
(extra per shower)	30
(vi) Patients' clothing store	120
(vii) Clean linen reception room	120
(viii) Drying room	30

* 120 sq ft. only is required if central washing-up facilities are provided.

Hospital Building Note No. 2

Appendix E

Psychiatric Ward Type I

Hospital Building Note No. 31

The scales of accommodation and cost recommendations are applicable to wards for thirty patients who are either low grade, severely subnormal or severely physically handicapped, requiring constant supervision and habit-training in a psychiatric hospital.

A. Basic accommodation

Group (A)

(i) Main entrance
(ii) Staff lavatories
(iii) Visitors' room
(iv) Visitors' lavatory
(v) Ward pantry
(vi) Treatment room/clean utility
(vii) Ward stock room and equipment store
(viii) Trolley and chair bay
(ix) Cleaners' room

Group (B)

(i) Single-bed wards
(ii) Multiple-bed wards
(iii) Sister's or charge nurse's office
(iv) Nurses' station
(v) Day space
(vi) Dining space
(vii) Verandah

Group (C)

(i) Patients' lavatories
(ii) Sluice room
(iii) Soiled linen room
(iv) Changing room
(v) Bathrooms
(vi) Patients' clothing store
(vii) Clean linen reception room
(viii) Drying room

Circulation space necessary for all groups above.

B. Additional accommodation

(*a*) Patients' clothing store
(*b*) Doctor's room
(*c*) Bicycle store

Circulation space

For the purpose of the provisional cost limit the area occupied by internal circulation space and internal walls and partitions represents on average an addition of 20 per cent to the net floor area of the basic and additional accommodation.

DEPARTMENTAL COST ALLOWANCES

1. Basic accommodation

Functional unit—the ward unit for 30 patients.

		£
For the ward unit	— Allow	41,100
Where a central sterile supply department service is not available and a bowl and instrument steriliser is required	— Allow	270
Where central washing up is to be used with a consequent reduction in the size of the ward pantry	— Deduct	500

2. Additional accommodation

Cost of additional accommodation except for the following:	— Allow £4 15s. 0d. per sq. ft.
Bicycle store	— Allow £1 10s. 0d. per sq. ft.

Note: Engineering

The following engineering services are included in items 1 and 2 above and account for approximately 22 to 24 per cent of the total cost:

Space heating and extract ventilation.

Hot, cold and drinking water services including fire hose connections.

Gas services.

Lighting, including fittings, general purpose socket outlets, emergency electrical services, clocks, telephones, staff location, fire alarms, T.V. aerial conduit and wiring for mechanical services.

Equipment including hot closet, instantaneous water boiler, grill unit, bed-pan washer and dish-washing machine.

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